

## CLAIMS

1. A field effect transistor comprising a III group nitride semiconductor layer structure including hetero junction, a source electrode and a drain electrode that are so formed on said semiconductor layer structure as to be separated each other, a gate electrode formed between said source electrode and said drain electrode, and an insulating film formed on said semiconductor layer structure, characterized in that

said gate electrode has a field plate portion that projects to said drain electrode in the form of an eave and that is formed on said insulating film; and  
5 thickness of a portion of said insulating film lying between said field plate portion and said semiconductor layer structure gradually increases from said gate electrode toward said drain electrode.
- 10 2. The field effect transistor according to Claim 1, wherein said semiconductor layer structure has an AlGaN/GaN hetero structure.
3. The field effect transistor according to Claim 1 or 2, wherein a thickness of said portion of said insulating film varies stepwise.
4. The field effect transistor according to Claim 1 or 2, wherein a thickness of said portion of said insulating film varies continuously.
5. The field effect transistor according to anyone of Claims 1 to 4, wherein said insulating film is a SiON film.
6. The field effect transistor according to anyone of Claims 1 to 4, wherein

said insulating film is a SiO<sub>2</sub> film or a SiN film.

7. The field effect transistor according to anyone of Claims 1 to 4, wherein said insulating film is a laminated layer of a SiO<sub>2</sub> film and a SiN film.

8. The field effect transistor according to anyone of Claims 1 to 7, wherein a drain field plate electrode connected to said drain electrode is arranged on said insulating film between said gate electrode and said drain electrode.